

CLAIMS

I claim:

1. A method in one or more computer systems for identifying auctions offering the same item, comprising:

displaying information about a first auction, the information including a description of a first item offered in the first auction;

receiving user input requesting information about other auctions offering items that are the same as the first item; *Not shown*

determining, for the description of the first item among descriptions of items offered in a group of auctions including the first auction, the inverse document frequency of terms occurring within the description of the first item;

selecting a plurality of terms within the description of the first item having the largest inverse document frequencies;

for each of the selected terms, conducting a search for auctions in the group whose item descriptions contain the selected term;

for each auction found in at least one of the conducted searches, determining which of the selected terms occur in the auction's item description;

identifying as an auction offering an item that is the same as the first item *112*
an auction among the found auctions where the sum of the inverse document frequencies of the selected terms that occur in the item description for *(the)* auction exceeds a threshold; and *112*

displaying information about the identified auction.

2. A method in a computer system for identifying purchasing opportunities within a set of purchasing opportunities that are similar to a distinguished purchasing opportunity, the distinguished purchasing opportunity having descriptive information associated with it, comprising:

5 for each of a plurality of terms occurring in the descriptive information
6 associated with the distinguished purchasing opportunity, generating a term score
7 reflecting the extent to which the occurrence of the term in the descriptive information
8 associated with the distinguished purchasing opportunity differentiates the distinguished
9 purchasing opportunity from other purchasing opportunities in the set;

10 selecting as key words a plurality of terms having the highest term scores;

11 identifying purchasing opportunities of the set containing key words; and

12 establishing a purchasing opportunity score for each identified purchasing
13 opportunity by summing the term score of the key words occurring in descriptive
14 information associated with the identified purchasing opportunities.

1 3. The method of claim 2 wherein generating a term score for each term
2 includes determining the fraction of occurrences of the term in descriptive information
3 associated with the purchasing opportunities of the set that occur in the descriptive
4 information associated with the distinguished purchasing opportunity.

1 4. The method of claim 2 wherein identifying purchasing opportunities
2 of the set containing key words includes performing a separate search for purchasing
3 opportunities whose descriptive information includes each key word to produce a search
4 result.

1 5. The method of claim 4, further comprising determining which key
2 words occur in the descriptive information associated with each purchasing opportunities
3 based upon which of the produced search results contain the purchasing opportunity.

1 6. The method of claim 2 wherein the distinguished purchasing
2 opportunity and at least a subset of the purchasing opportunities of the set are of one or
3 more purchasing opportunity types selected from the group consisting of:

4 store;

5 classified sale;

6 auction;
7 reverse auction; and
8 purchase aggregation.

1 ✓ 7. The method of claim 2, further comprising selecting the
2 distinguished purchasing opportunity in response to a user request to display information
3 about the distinguished purchasing opportunity.

1 ✓ 8. The method of claim 2, further comprising selecting the
2 distinguished purchasing opportunity in response to the exercise of the distinguished
3 purchasing opportunity by a selected user.

1 ✓ 9. The method of claim 8, further comprising selecting the
2 distinguished purchasing opportunity in response to the purchase by the selected user of
3 an item offered in the distinguished purchasing opportunity.

1 ✓ 10. The method of claim 8, further comprising selecting the
2 distinguished purchasing opportunity in response to a bid by the selected user on an item
3 offered in the distinguished purchasing opportunity.

1 ✓ 11. The method of claim 2, further comprising, in response to a user
2 request for information about a purchasing opportunity similar to the distinguished
3 purchasing opportunity, displaying information about the identified purchasing
4 opportunity having the largest purchasing opportunity score.

1 ✓ 12. The method of claim 2, further comprising, in response to a user
2 request for information about the distinguished purchasing opportunity, displaying
3 information about the identified purchasing opportunity having the largest purchasing
4 opportunity score in conjunction with displaying information about the distinguished
5 purchasing opportunity.

Species

shown?
not in fig
5-c?

not shown
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1 ✓ 13. The method of claim 2, further comprising displaying at least a
2 portion of the identified purchasing opportunities in the order of their purchasing
3 opportunity scores.

1 ✓ 14. The method of claim 2, further comprising displaying a proper
2 subset of the identified purchasing opportunities whose purchasing opportunity scores
3 each exceed a minimum threshold.

1 ✓ 15. The method of claim 14 wherein the displaying displays a
2 predetermined fixed number of the identified purchasing opportunities.

1 ✓ 16. The method of claim 14 wherein the displaying displays all of the
2 identified purchasing opportunities whose purchasing opportunity scores each exceed the
3 minimum threshold.

1 ✓ 17. The method of claim 2 wherein a predetermined fixed number of key
2 words are selected.

1 ✓ 18. The method of claim 2 wherein a number of terms that is a
2 predetermined fraction of the number of terms occurring in the descriptive information
3 associated with the distinguished purchasing opportunity are selected as key words.

1 ✓ 19. The method of claim 2 wherein all of the terms whose term scores
2 exceed a minimum threshold are selected as key words.

1 ✓ 20. The method of claim 2 wherein the descriptive information
2 associated with the distinguished purchasing opportunity includes the purchasing
3 opportunity type of the distinguished purchasing opportunity.

1 21. The method of claim 2 wherein the descriptive information
2 associated with the distinguished purchasing opportunity includes an item name of an
3 item offered in the distinguished purchasing opportunity.

1 22. The method of claim 2 wherein the descriptive information
2 associated with the distinguished purchasing opportunity includes an item description of
3 an item offered in the distinguished purchasing opportunity.

1 23. The method of claim 2 wherein the descriptive information
2 associated with the distinguished purchasing opportunity includes a price at which an
3 item is offered in the distinguished purchasing opportunity.

1 24. The method of claim 2 wherein the descriptive information
2 associated with the distinguished purchasing opportunity includes a seller identity of the
3 distinguished purchasing opportunity.

1 25. The method of claim 2 wherein the descriptive information
2 associated with the distinguished purchasing opportunity includes a seller location of the
3 distinguished purchasing opportunity.

1 26. The method of claim 2 wherein the descriptive information
2 associated with the distinguished purchasing opportunity includes availability of an item
3 offered in the distinguished purchasing opportunity.

1 27. The method of claim 2 wherein the descriptive information
2 associated with the distinguished purchasing opportunity includes shipping terms for an
3 item offered in the distinguished purchasing opportunity.

1 28. The method of claim 2 wherein the descriptive information
2 associated with the distinguished purchasing opportunity includes forms of payment
3 accepted for the distinguished purchasing opportunity.

1 29. The method of claim 2 wherein distinguished purchasing opportunity
2 is an auction, and wherein the descriptive information associated with the distinguished
3 purchasing opportunity includes the closing date of the auction.

1 30. The method of claim 2 wherein a distinguished item is offered for
2 purchase in the distinguished purchasing opportunity, and wherein the descriptive
3 information associated with the distinguished purchasing opportunity includes a publisher
4 of the distinguished item. NS

1 31. The method of claim 2 wherein a distinguished item is offered for
2 purchase in the distinguished purchasing opportunity, and wherein the descriptive
3 information associated with the distinguished purchasing opportunity includes an author
4 of the distinguished item. NS

1 32. The method of claim 2 wherein a distinguished item is offered for
2 purchase in the distinguished purchasing opportunity, and wherein the descriptive
3 information associated with the distinguished purchasing opportunity includes an artist of
4 the distinguished item.

1 33. The method of claim 2 wherein a distinguished item is offered for
2 purchase in the distinguished purchasing opportunity, and wherein the descriptive
3 information associated with the distinguished purchasing opportunity includes a
4 performer of the distinguished item.

1 34. The method of claim 2 wherein a distinguished item is offered for
2 purchase in the distinguished purchasing opportunity, and wherein the descriptive
3 information associated with the distinguished purchasing opportunity includes a size of
4 the distinguished item.

1 35. The method of claim 2 wherein a distinguished item is offered for
2 purchase in the distinguished purchasing opportunity, and wherein the descriptive
3 information associated with the distinguished purchasing opportunity includes a color of
4 the distinguished item.

1 36. The method of claim 2 wherein a distinguished item is offered for
2 purchase in the distinguished purchasing opportunity, and wherein the descriptive
3 information associated with the distinguished purchasing opportunity includes a style of
4 the distinguished item.

1 37. A computer-readable medium whose contents cause a computer
2 system to identify purchasing opportunities within a set of purchasing opportunities that
3 are similar to a distinguished purchasing opportunity, the distinguished purchasing
4 opportunity having descriptive information associated with it, by:

5 for each of a plurality of terms occurring in the descriptive information
6 associated with the distinguished purchasing opportunity, generating a term score
7 reflecting the extent to which the occurrence of the term in the descriptive information
8 associated with the distinguished purchasing opportunity differentiates the distinguished
9 purchasing opportunity from other purchasing opportunity in the set;

10 selecting as key words a plurality of terms having the highest term scores;
11 identifying purchasing opportunities of the set containing key words; and
12 establishing a purchasing opportunity score for each identified purchasing
13 opportunity by summing the term score of the key words occurring in information
14 associated with the identified purchasing opportunities.

1 ✓ 38. The computer-readable medium of claim 37 wherein generating a
2 term score for each term includes determining the fraction of occurrences of the term in
3 information associated with the purchasing opportunities of the set that occur in the
4 information associated with the distinguished purchasing opportunity.

1 ✓ 39. The computer-readable medium of claim 37 wherein the contents of
2 the computer-readable medium further cause the computer system to display at least a
3 portion of the identified purchasing opportunities in the order of their purchasing
4 opportunity scores.

1 ✓ 40. The computer-readable medium of claim 37 wherein the contents of
2 the computer-readable medium further cause the computer system to display a proper
3 subset of the identified purchasing opportunities whose purchasing opportunity scores
4 each exceed a minimum threshold.

1 ✓ 41. A data processing system for scoring purchasing opportunities within
2 a set of purchasing opportunities in terms of their similarity to a distinguished purchasing
3 opportunity, the distinguished purchasing opportunity having descriptive information
4 associated with it, comprising:

5 a term score generator that, for each of a plurality of terms occurring in the
6 descriptive information associated with the distinguished purchasing opportunity,
7 generates a term score reflecting the extent to which the occurrence of the term in the
8 descriptive information associated with the distinguished purchasing opportunity
9 differentiates the distinguished purchasing opportunity from other purchasing opportunity
10 in the set;

11 a key word selection subsystem that selects as key words a plurality of
12 terms having the highest term scores;

13 a purchasing opportunity identification subsystem that identifies purchasing
14 opportunities of the set containing key words; and

15 a purchasing opportunity score that establishes a purchasing opportunity
16 score for each identified purchasing opportunity by summing the term score of the key
17 words occurring in information associated with the identified purchasing opportunities.

1 ✓ 42. A method in a computer system for identifying documents in a set of
2 documents relevant to a distinguished document, comprising:
3 identifying key words within the distinguished document; and
4 ranking documents of the set based upon which of the identified key words
5 they contain.

1 ✓ 43. The method of claim 42 further comprising performing a separate
2 search for each of the identified keywords.

1 ✓ 44. The method of claim 42 wherein the ranking is further based upon,
2 for each key word, the fraction of occurrences of the key word in the set of documents
3 that occur in the distinguished document.

1 ✓ 45. The method of claim 42 wherein the identifying identifies words
2 within the distinguished documents that occur with the highest frequencies in the
3 distinguished document relative to the frequencies with which they occur in the set of
4 documents as a whole.

1 ✓ 46. The method of claim 42 wherein the distinguished and ranked
2 elements each describe a purchasing opportunity

1 ✓ 47. The method of claim 42 wherein the distinguished and ranked
2 documents each describe an online auction.

1 ✓ 48. A computer-readable medium whose contents cause a computer
2 system to identify documents in a set of documents relevant to a distinguished document,
3 by

4 identifying key words within the distinguished document and
5 ranking documents of the set based upon which of the identified key words
6 they contain.

1 ✓ 49. The computer-readable medium of claim 48 wherein the contents of
2 the computer-readable medium further cause the computer system to perform a separate
3 search for each of the identified keywords.

1 ✓ 50. The computer-readable medium of claim 48 wherein the ranking is
2 further based upon, for each key word, the fraction of occurrences of the key word in the
3 set of documents that occur in the distinguished document.

1 ✓ 51. The computer-readable medium of claim 48 wherein the identifying
2 identifies words within the distinguished documents that occur with the highest
3 frequencies in the distinguished document relative to the frequencies with which they
4 occur in the set of documents as a whole.

1 ✓ 52. The computer-readable medium of claim 48 wherein the
2 distinguished and ranked documents each describe a purchasing opportunity.

1 ✓ 53. The computer-readable medium of claim 48 wherein the
2 distinguished and ranked documents each describe an online auction.

1 54. A computer memory containing a purchasing opportunity ranking
2 data structure, comprising a plurality entries, each entry comprising an indication of a
3 purchasing opportunity and an indication of a purchasing opportunity score indicating a
4 level of similarity between the purchasing opportunity and a selected purchasing
5 opportunity.

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